

REMARKS

Claims 1 through 21 remain pending. Claim 1 is hereby amended. Applicants respectfully traverse the rejections of the Office Action mailed April 25, 2008, [hereinafter “Apr. 25th OA”], and request reconsideration.

Regarding the allowability of claims 8, 16 and 21

Applicants thank the Examiner for the acknowledgement that claims 8, 16, and 21, although objected to, are directed to allowable subject matter if rewritten. See Apr. 25th OA, page 6. Because Applicants herein assert the allowability of the rejected base claims, independent claims 1, 10 and 21, Applicants respectfully request reconsideration and withdrawal of the objection to claims 8, 16 and 21 for the reasons set forth below with respect to independent claims 1, 10 and 21.

Regarding the rejections under 35 U.S.C. § 112 of claims 1 and 8

Claims 1 and 8 have been rejected for lacking antecedent basis for “the instruction.” Claims 2 through 9 are dependent on claim 1 and are therefore likewise rejected. See Apr. 25th OA, page 6. Claim 1 has been amended to correct the error as noted. Reconsideration and withdrawal of the 35 U.S.C. § 112 rejection of claim 1 is respectfully requested in light of the amendments. Likewise, reconsideration and withdrawal of the 35 U.S.C. § 112 rejection of dependent claims 2 through 9 (including 8) is respectfully requested in light of the amendments to independent claim 1.

Regarding the “Response to Arguments,” pages 2 - 5, ¶3

The Applicants thank that Examiner for the detailed discussion regarding the Applicants’ arguments as presented in their Amendment and Response dated Feb. 12, 2008, [hereinafter “Feb. 12th Response”].

The Applicants’ however believe that the discussion with respect to Ng, overlooks the claim language as amended by the Applicants’ Feb. 12th Response. Applicants agree that the pending claims must be given their broadest interpretation consistent with the specification. However, Applicants also respectfully point out that, in order to establish anticipation under 35 U.S.C. 102(b), “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

See MPEP § 1231, page 2100-67 (Rev. 6, Sep. 2007). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” Id. (quoting Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236).

Applicants respectfully submit that the Ng reference does not meet the standard for a 102(b) rejection, as set forth in the MPEP, regarding the Applicants’ claims as amended in the Applicants’ Feb. 12th Response. For example, the USPTO focuses on certain language of the claim, but does not directly address the specific language of the claims as amended. With respect to claim 1, “**redundancy checking**” is bolded as apparently being the primary focus of Applicants’ argument of page 9 of the Applicants’ Feb. 12th Response. See Apr. 25th OA, page 2. However, Applicants were discussing the applicability of Ng to single instruction multiple data (SIMD) processing and the question of whether Ng describes “redundancy checking **for superword registers or multiple components contained in a superword register, that may be employed for example in single instruction multiple data (SIMD) processing.**” See Feb.

12th Response, page 9 {emphasis added}. While the USPTO addresses the question of whether Ng discloses “redundancy checking,” the resolution of this question alone does not address the assertion posed by Applicants regarding superword registers and the disclosure of Ng with respect to superword registers. Indeed the system disclosed by Ng, “global value numbering,” is discussed in Applicants’ Specification in the Background portion. See U.S. Patent Publication No. 2005/0198468 ¶ [0006] (published Sep. 8, 2005), [hereinafter “Spec.”].

The USPTO also discussed “*retrieving an operation value number from a first hash table based on the first hash value wherein said operation value number corresponds to components contained by superword register.*” See Apr. 25th OA, page 2 {emphasis as shown in OA}. The USPTO states that Ng teaches, “A Hash table is used to speed up the storing and **retrieval of value numbers**” in Ng, col. 7, lines 51-52. See Apr. 25th OA, page 3 {emphasis as shown in OA}. The Applicants do not see where Ng teaches that this “value number” corresponds to a superword component.

Further the USPTO disagrees that Ng fails to describe “*generating a results value number based on previous value number and the operation value number wherein the said result value number is a combination of operation value numbers.*” See Apr. 25th OA, page 3. The USPTO asserts that a “value number” as defined by Ng is a “value number in the **prior art**,” (See Apr. 25th OA, page 3 {emphasis as shown in OA}), and that, “In other words, Ng recognizes the differences between the prior art and his invention.” See Apr. 25th OA, page 3. The USPTO also states that, “The claim language does not limited to any type of value number.” See Apr. 25th OA, page 3. The Applicants respectfully disagree.

Firstly, with respect to the disclosure of Ng, and the USPTO’s statement that “Ng recognizes the differences between the prior art and his invention,” the only definition of a value

number as disclosed by Ng, as far as the Applicants were able to ascertain from the disclosure of Ng, is as cited in Applicants' Feb. 12th Response, page 10. If the USPTO believes that Ng provides some other definition for this terminology, "value number," then the Applicants respectfully request that the USPTO provide a citation to Ng by column and line number so that Applicants may have the benefit of the USPTO's understanding of Ng's definition and the differences between his invention and the prior art as explicitly stated in the Ng disclosure.

Second, regarding the "type of value number" recited in Applicants' claim language, the amendments of the Feb. 12th Response provide:

1) "said operation value number corresponds to components contained by a superword register"

2) "a result value number [is] based on a previous value number and the operation value number"

3) "wherein said result value number is a combination of operation value numbers."

In the Applicants' Feb. 12th Response, page 10, the Applicants' distinguished the Ng "value number" from the claim language "operation value number" and "result value number" and the claims indeed provide ample language, as shown above, for understanding the meaning of these terms, and for distinguishing the terms from the "value number" as defined in the language of the Ng disclosure.

Likewise, because the Applicants' claims define a "result value number" which is distinguishable from the "value number" defined by Ng and "search a second hash table using the result value number," these features of Applicants' claims are not disclosed by Ng. Note that this holds true even if the Ng "value number" "is still a value number assigned to an expression"

as asserted by the USPTO, because the Applicants' claims remain distinguishable from Ng under the "operation value number" and "result value number" defined by the claim.

As requested above, if the USPTO maintains the rejection based on the Ng "value numbers" then the Applicants respectfully request that the USPTO indicate where in the disclosure of Ng, by column and line number, the USPTO finds the definitions recited by Applicants' claims.

Regarding the rejections under 35 U.S.C. § 102(b) of claims 1 and 8

Claims 1-7, 9-15 and 17-20 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,035,124 (issued Mar. 7, 2000) to Ng, of record, [hereinafter "Ng"]. See Apr. 25th OA, page 6.

The rejections under 35 U.S.C. § 102(b) with respect to Ng are largely covered in the discussion above with respect to the "Response to Arguments" provided on pages 2 - 5, ¶3 of the Apr. 25th OA. Therefore, the Applicants here only briefly reiterate with respect to Ng.

Regarding independent claims 1 and 10, the USPTO argues that Ng discloses *"retrieving an operation value number from a first hash table based on the first has value wherein said operation value number corresponds to components contained by a superword register."* See Apr. 25th OA, page 7. As far as Applicants can glean from the Ng disclosure, Ng does not handle components contained by a superword register. Further, Ng does not define an "operation value number . . . wherein said operation value number corresponds to components contained by a superword register. Ng only defines a value number as was discussed above with respect to the "Response to Arguments."

The USPTO argues that Ng discloses, *"generating a result value number based on a previous bit hash value and the operation value number wherein said result value number is a*

*combination of operation value numbers.” See Apr. 25th OA, page 7. The USPTO cites to Ng col. 8, lines 7-28, wherein Ng discloses that “Each time a new value number is formed, the expression is entered into the hash table.” .” See Apr. 25th OA, page 7. As was discussed above with respect to the “Response to Arguments,” the value numbers as defined by Ng do not disclose the features recited by Applicants’ claims. Further, Applicants have discussed such global value numbering and extended global value numbering in their Background and distinguish from this art in their claims. See Spec., ¶ [0006]. Forming a new value number and placing an expression into a hash table each time a new value number is formed is not, *“generating a result value number based on a previous bit hash value and the operation value number wherein said result value number is a combination of operation value numbers.”* The value number of Ng are not the “result value number” and “operation value number” recited in the claims.*

Reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of independent claims 1, 10 and 19, is respectfully requested in light of the above discussion. The dependent claims are allowable for at least the reasons provided for independent claims 1, 10 and 19. Therefore reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of all dependent claims is likewise respectfully requested.

CONCLUSION

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. Also, no amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

It is submitted that the claims clearly define the invention, are supported by the specification and drawings, and are in a condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should the Examiner have any questions or concerns that may expedite prosecution of the present application, the Examiner is encouraged to telephone the undersigned.

Respectfully submitted,

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